

In The Claims

A complete listing of the claims is listed below with proper claim identifiers.

1. (previously amended) A shredder for shredding material, comprising:
a housing having a cutting device to shred material;
a receptacle positioned to receive the shredded material; and,
a detecting device positioned below the cutting device between the cutting device and the receptacle, wherein the detecting device emits and detects a beam such that when shredded material occupies a first position within the receptacle the beam is interrupted.
2. (original) The shredder of claim 1 wherein the detecting device emits an infrared beam.
3. (original) The shredder of claim 1 wherein the detecting device further comprises a light emitting diode.
4. (original) The shredder of claim 1 wherein the detecting device further comprises a laser.
5. (original) The shredder of claim 1 wherein the detecting device further comprises a light source not in a visible spectrum.
6. (original) The shredder of claim 1 further comprising a timer set to a predetermined period of time such that when the shredded material interrupts the beam for a period longer than the predetermined period of time, the cutting device is deactivated.

7. (original) The shredder of claim 6, wherein the predetermined period of time is between about 1 to about 30 seconds.

8. (original) The shredder of claim 1 further comprising an indicator to provide indication that the shredded material occupies a first position within the receptacle.

9. (original) The shredder of claim 8, wherein the indicator provides visual indication.

10. (original) The shredder of claim 8, wherein the indicator provides audible indication.

11. (original) The shredder of claim 1, wherein the receptacle comprises a bottom and at least one wall extending from the bottom to define an open top to receive the shredded material.

12. (previously amended) A detection apparatus that detects the presence of shredded material comprising:

a comminuting device having an egress for shredded material; and

a detecting device that emits and detects an infrared detection beam, wherein the detecting device is positioned below the egress and is electrically connected with the comminuting device, wherein the comminuting device is deactivated when the detection beam is interrupted by shredded material for a predetermined amount of time.

13. (original) The bin full detection apparatus of claim 12 further comprising a timer, the timer being set to the predetermined period of time such that when the shredded material interrupts the beam for a period longer than the predetermined amount of time, the comminuting device is deactivated.

14. (original) The bin full detection apparatus of claim 13, wherein the predetermined amount of time is between about 1 to about 30 seconds.

15. (original) The bin full detection system of claim 12 further comprising an indicator to provide indication that the shredded material has interrupted the detection beam for the predetermined amount of time.

16. (original) The bin full detection system of claim 12 further comprising a receptacle to receive the shredded material, wherein the receptacle is positioned beneath the detection beam.

17. (previously amended) In a comminuting device having an area from which comminuted material exits, the comminuting device including an egress for the comminuted material, the improvement comprising a detecting device that emits and detects a beam and is located below the egress adjacent the area from which the comminuted material exits, wherein the comminuting device is rendered inoperable when the beam is interrupted by the comminuted material for a period of time greater than a predetermined period of time.

18. (original) The comminuting device of claim 17, wherein the detecting device emits an infrared beam.

19. (original) The comminuting device of claim 17, wherein the detecting device further comprises a light emitting diode.

20. (original) The comminuting device of claim 17, wherein the detecting device further comprises a laser.